

Listing of Claims:

1. (Original) A method comprising:

initializing a processing system according to predetermined basic input/output system (BIOS) settings for the processing system;

booting an operating system (OS) on the processing system; and

providing a virtual runtime interface that allows a user to modify the BIOS settings for the processing system after the OS has been booted.

2. (Previously presented) The method according to claim 1, further comprising:

receiving user input data that requests invocation of the virtual runtime interface; and

automatically providing the virtual runtime interface, in response to receiving the user input data.

3. (Previously presented) The method according to claim 1, further comprising:

receiving user input data through the virtual runtime interface, wherein the user input data specifies a modified BIOS setting; and

saving the modified BIOS setting to be implemented upon a subsequent initialization of the processing system.

4. (Previously presented) The method according to claim 1, wherein the operation of providing a virtual runtime interface comprises:

transitioning the processing system from an OS context to a system management mode (SMM) context;

determining whether an amount of time spent in the SMM context approaches an SMM time limit; and

if the amount of time spent in the SMM context approaches the SMM time limit, automatically transitioning from the SMM context back to the OS context.

5. (Previously presented) The method according to claim 4, wherein the operation of providing a virtual runtime interface comprises:

providing a BIOS setup interface that appears persistent to the user by automatically interleaving two or more SMM contexts with two or more OS contexts.

6. (Previously presented) The method according to claim 4, further comprising:

saving state information from the SMM context before transitioning from the SMM context back to the OS context;

after transitioning back to the OS context, determining whether a configuration session has been completed; and

if the configuration session has not been completed, automatically transitioning from the OS context back to the SMM context.

7. (Previously presented) The method according to claim 6, wherein the operation of determining whether a configuration session has been completed comprises:

receiving input data from a watchdog timer for the virtual runtime interface when the processing system is in the OS context.

8. (Previously presented) An apparatus comprising:

a storage medium; and

instructions encoded in the storage medium, wherein the instructions, when executed by a processing system, cause the processing system to perform operations comprising:

providing a virtual runtime interface after the processing system has booted to an operating system (OS), wherein the virtual runtime interface allows a user to modify basic input/output system (BIOS) settings for the processing system, and wherein the virtual runtime interface provides a graphical user interface (GUI) that accepts user input data.

9. (Previously presented) The apparatus according to claim 8, wherein the operation of providing a virtual runtime interface comprises:

providing a BIOS setup interface that accepts alphanumeric input data.

10. (Previously presented) The apparatus according to claim 8, wherein the operation of providing a virtual runtime interface comprises:

providing a BIOS setup interface that accepts input data from a pointing device.

11. (Previously presented) An apparatus comprising:

a storage medium; and

instructions encoded in the storage medium, wherein the instructions, when executed by a processing system, cause the processing system to perform operations comprising:

providing a virtual runtime interface after the processing system has booted to an operating system (OS), wherein the virtual runtime interface allows a user to modify basic input/output system (BIOS) settings for the processing system;

receiving user input data through the virtual runtime interface, wherein the user input data specifies a modified BIOS setting; and

saving the modified BIOS setting to be implemented upon a subsequent initialization of the processing system.

12. (Previously presented) The apparatus according to claim 11, wherein the operations performed by the instructions further comprise:

automatically providing the virtual runtime interface, in response to user input data that requests invocation of the virtual runtime interface.

13. (Previously presented) An apparatus comprising:
 - a storage medium; and
 - instructions encoded in the storage medium, wherein the instructions, when executed by a processing system, cause the processing system to perform operations comprising:
 - detecting a BIOS configuration trigger event after the processing system has booted to an operating system (OS); and
 - in response to detecting the BIOS configuration trigger event, automatically providing a virtual runtime interface that allows a user to modify basic input/output system (BIOS) settings for the processing system.
14. (Previously presented) The apparatus according to claim 13, wherein the instructions cause the processing system to provide the virtual runtime interface by:
 - transitioning the processing system from an OS context to a system management mode (SMM) context;
 - determining whether an amount of time spent in the SMM context approaches an SMM time limit; and
 - if the amount of time spent in the SMM context approaches the SMM time limit, automatically transitioning from the SMM context back to the OS context.
15. (Previously presented) The apparatus according to claim 14, wherein the instructions cause the processing system to provide the virtual runtime interface by:
 - saving state information from the SMM context before transitioning from the SMM context back to the OS context;
 - after transitioning back to the OS context, determining whether a configuration session has been completed; and
 - if the configuration session has not been completed, automatically transitioning from the OS context back to the SMM context.

16. (Previously presented) The apparatus according to claim 15, wherein the operation of determining whether a configuration session has been completed comprises:

receiving input data from a watchdog timer for the virtual runtime interface when the processing system is in the OS context.

17. (Previously presented) The apparatus according to claim 13, wherein the instructions cause the processing system to provide a user interface that appears persistent to the user by automatically interleaving two or more SMM contexts with two or more OS contexts.

18. (Original) A processing system comprising:

a processor;
memory communicatively coupled to the processor;
basic input/output system (BIOS) settings stored in the memory; and
instructions stored in the memory, wherein the instructions, when executed by the processor, cause the processing system to perform operations comprising:

detecting a BIOS configuration trigger event after the processing system has booted to an operating system (OS); and

in response to detecting the BIOS configuration trigger event, automatically providing a virtual runtime interface that allows a user to modify the BIOS settings for the processing system.

19. (Previously presented) The processing system according to claim 18, wherein the memory comprises:

a first memory device that contains the BIOS settings; and
a second memory device that contains the instructions.

20. (Previously presented) The processing system according to claim 18, wherein the processing system provides the virtual runtime interface by:

transitioning from an OS context to a system management mode (SMM) context;

determining whether an amount of time spent in the SMM context approaches an SMM time limit; and

if the amount of time spent in the SMM context approaches the SMM time limit, automatically transitioning from the SMM context back to the OS context.

21. (Previously presented) The processing system according to claim 20, wherein the processing system provides the virtual runtime interface by:

saving state information from the SMM context before transitioning from the SMM context back to the OS context;

after transitioning back to the OS context, determining whether a configuration session has been completed; and

if the configuration session has not been completed, automatically transitioning from the OS context back to the SMM context.